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as a component of a group of units which is to receive the point-to-multipoint message, a status of the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit to a valid status;

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whereby only subscriber-side units designated as components of the group of units are allowed to receive and process the point-to-multipoint message generated by the station-side unit.

REMARKS

An Office Action was mailed on November 15, 2002. Claims 1 – 24 are pending in the present application. Claims 1, 5 and 15 are amended. No new matter is introduced.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 – 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,418,558 to Roberts et al. Applicants amend claims 1, 5 and 15 to further clarify the nature of their invention, and respectfully traverse this rejection.

In independent claims 1, 2, 5 and 15, Applicants disclose a communication system and method for carrying out point-to-multipoint communications from a station-side unit to some of a plurality of subscriber-side units. The station-side unit includes a point-to-multipoint message generating unit for generating the point-to-multipoint message, and a group designating message generating unit for selectively designating some of the subscriber-side units as valid or active to receive the point-to-multipoint message.

Each subscriber-side unit includes a point-to-multipoint message processing unit for receiving and processing a point-to-multipoint message generated by the station-side unit, and a state control unit for controlling the point-to-multipoint message processing unit to receive and process a point-to-multipoint message only when a status of the state control unit is valid. In this manner, fewer than all of the subscriber-side units may be activated to receive and process a point-to-multipoint message. This feature of Applicants' claimed invention is particularly useful, for example, when the subscriber-side units are produced by different manufacturers and the station-side unit seeks to send a vendor-specific message (VSM) to one or more subscriber-side units produced by an identified vendor.

Roberts discloses a hybrid fiber/coax video and telephony communication system including a station side unit 32 and a plurality of subscriber side units 540 (see, e.g., FIG. 96 of Roberts). As acknowledged by the Examiner, Roberts fails to disclose Applicants' claimed state control unit (as well as, for that matter, Applicants' group designating message generating unit).

The Examiner suggests that Roberts' "control data which performs as an identification signal for the remote units" (see, e.g., column 112, lines 14 – 25) suggests Applicants state control unit. Applicants respectfully disagree.

As described in Roberts, control data "contains an identification signal that indicates the ISU to receive the control data" (column 112, lines 24 – 25). Applicants suggest that Roberts' identification signal is appropriately compared to Applicants' prior-art PON-ID, which may be sent in a point-to-multipoint message in order to bring a specified one of the subscriber-side units into a reception mode (see, e.g., page 4, line 26

through page 5, line 6 of Applicants' specification). As described in the Background Art of Applicants' specification, prior art systems accordingly enabled communication with only one subscriber unit or with all subscriber-side units interconnected to a station-side unit.

By way of contrast, Applicants invention advances the art by providing a means by which more than one but fewer than all subscriber-side units can be enabled to receive a point-to-multipoint message. As noted by Applicants, this claimed feature is significant in a communication system that must provide vendor specific message (VSM) information to a heterogeneous group of station-side units having various protocols. Prior art systems inefficiently either broadcast VSM messages to all station-side units, or sequentially transmitted VSM messages to individual station-side units in a group. Applicants invention allows units in the group to be enabled, units outside the group to be disabled, and point-to-multipoint messages thereby to be broadcast exclusively to members of the group. This novel feature of Applicants' claimed invention is neither disclosed nor suggested by Roberts.

Accordingly, Applicants' respectfully submits that independent claims 1, 2, 5 and 15 are not made obvious by Roberts, and therefore stand in condition for allowance. As claims 3 – 4 , 6 – 14 and 16 – 24 respectively depend from allowable claims 2, 5 and 15, that claims 3 – 4 , 6 – 14 and 16 – 24 are allowable for at least this reason.

CONCLUSION


An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 –

24, which include independent claims 12, 5 and 15, and the claims that depend therefrom, stand in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Attached is a marked up version of the changes made to the claims by the current amendment. The attached pages are captioned **"Version With Markings To Show Changes Made"**.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,



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Version with Markings to Show Changes Made – S/N 10/034,928

IN THE CLAIMS

Please amend claims 1, 5 and 15 as indicated:

1. (Twice Amended) A communication system including a plurality of subscriber-side units manufactured by respective desired vendors and a station-side unit manufactured by a desired vendor accommodating the subscriber-side units, the station-side unit being capable of carrying out a point-to-multipoint communication with all of the subscriber-side units by sending a message in a manner of point-to-multipoint communication,

the station-side unit comprising:

a point-to-multipoint message generating unit for generating a point-to-multipoint message; and

a group designating message generating unit for generating a group designating message to designate some of the subscriber-side units as a component constituting a group of units which are to receive the point-to-multipoint message, and

the subscriber-side unit comprising:

a point-to-multipoint message processing unit for receiving and processing the point-to-multipoint message from the station-side unit; and

a state control unit for controlling, in response to a reception of the group designating message from the station-side unit, a status of the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit to a valid status ;

whereby only subscriber-side units having a valid status are
allowed to receive and process the point-to-multipoint message generated
by the station-side unit.

2. (Unchanged) A method of processing a message for use in a communication system including a plurality of subscriber-side units manufactured by respective desired vendors and a station-side unit manufactured by a desired vendor accommodating the subscriber-side units, the station-side unit being capable of carrying out a point-to-multipoint communication with all of the subscriber-side units by sending a message in a manner of point-to-multipoint communication, wherein

the station-side unit designates some of the subscriber-side units as a component constituting a group of units which are to receive a point-to-multipoint message, and

only the subscriber-side units designated as the component constituting the group of units are allowed to receive and process the broadcast message sent from the station-side unit in the manner of point-to-multipoint communication.

5. (Twice Amended) A station-side unit accommodating a plurality of subscriber-side units manufactured by respective desired vendors, the station-side unit being capable of carrying out a point-to-multipoint communication with all of the subscriber-side units by sending a message in a manner of point-to-multipoint communication, the station-side unit comprising:

a point-to-multipoint message generating unit generating a broadcast message in a manner of point-to-multipoint communication; and

a group designating message generating unit for generating a group designating message to designate some of the subscriber-side units as a component constituting a group of units which are to receive the point-to-multipoint communication message;

whereby only subscriber-side units designated as components of the group of units are allowed to receive and process the broadcast message generated by the station-side unit.

15. (Twice Amended) A subscriber-side unit accommodated together with other subscriber-side units in a point-to-multipoint communication network handled by a station-side unit which is manufactured by a desired vendor and capable of carrying out point-to-multipoint communication with all subscriber-side units, the subscriber-side unit comprising:

a point-to-multipoint message processing unit for receiving and processing the point-to-multipoint message from the station-side unit, and

a state control unit for controlling, in response to a reception of a group designating message from the station-side unit which designates the subscriber-side unit as a component [constituting] of a group of units which is to receive the point-to-multipoint message, a status of the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit to a valid status;

whereby only subscriber-side units designated as components of the group of units are allowed to receive and process the point-to-multipoint message generated by the station-side unit.